

What is claimed is:

1. A solid chelating resin comprising
 - a) a reactive hydrophobic backbone
 - b) pendent carbodithioic groups
2. The resin of claim 1 wherein said hydrophobic backbone is nucleophilic.
3. The resin of claim 1 wherein said resin is a poly(dithiocarbamate).
4. The resin of claim 3 wherein said resin contains no tertiary nitrogen groups.
5. The resin of claim 1 further comprising a cross-linking reagent reacted onto said reactive sites.
6. The resin of claim 5 wherein said cross-linking reagent reacts to form an alkylene, amine, ether, phosphine, sulfide, amide, urea, urethane, phosphoamidate, or thioamidate linkage.
7. The resin of claim 5 wherein said cross-linking agent comprises 4,4'-methylenebis (phenyl isocyanate) (MDI), polymeric MDI or polymethylene polyphenyl isocyanate (PAPI), tolylene 2,4, diisocyanate (TDI), isophorone diisocyanate (IPDI), terephthalic acid and its analogs, and adipic acid and its analogs.
8. The resin of claim 2 wherein said nucleophile comprises a C, N, O, P, S, or mixtures thereof.
9. The resin of claim 1 wherein said reactive hydrophobic backbone comprises a diamine, multiamine or a diol.
10. The resin of claim 9 wherein said reactive hydrophobic backbone comprises hexamethylenediamine (HMDA), diethylenetriamine (DETA), triethylenetetramine (TETA), tetraethylenepentamine (PETA), or a mixture thereof.
11. A process for producing a chelating resin comprising:
 - a) reacting a nucleophilic compound with carbon disulfide in a suitable solvent, to form a carbodithioic acid;
 - b) neutralizing said carbodithioic acid with a base to form a carbodithioic acid salt;
 - c) reacting said carbodithioic acid salt with a crosslinking reagent in a suitable solvent to form a solid chelating resin.
12. The process of claim 11 wherein said chelating resin comprises a (poly)dithiocarbamate

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